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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,741	07/25/2001	Kouji Tometsuka	TOME3001/EM/7026	5599

23364 7590 03/12/2004
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EXAMINER

KACKAR, RAM N

ART UNIT PAPER NUMBER

1763

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,741

Applicant(s)

TOMETSUKA, KOUJI

Examiner

Ram N Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1 RCE dated 11/26/2003 is acknowledged.

Claim Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3 Claims 1- 7, 13-19 and 21-22 are rejected under 35 U.S.C. 102(b) as being unpatentable over Harada et al (US 5112641) in view of Fujita et al (US 6238488).

Harada et al disclose a reaction chamber (Fig 12-12) for processing a plurality of process substrates, a boat, which loads in to the reaction chamber (Fig 12-2), a carrier which transfers the process substrates (Fig 12-7 and 14) and a stocker to store dummy substrates (Fig 12 -7 or 2).

Harada et al disclose a CVD apparatus (Abstract) but do not expressly disclose two gas lines.

Fujita et al disclose a similar vertical wafer boat for CVD having a line for process gas and another dedicated to cleaning gas (Abstract and Fig 1-36 and 58).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to have an additional line for cleaning gas for cleaning the chamber or its contents.

Claims 2, 3, 6-7, 14-15, 17-19, 21 are rejected as being directed to an intended use. Regarding claim 2 and 14 the intended use of counting is capable of being performed by a control portion (Col 5 lines 30-47). Similarly the disclosed programmable control apparatus is capable of performing all the intended use functions as claimed.

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Claims 4-5 and 16 cite only a product, which may be processed by the claimed apparatus and therefore not patentable.

4 Claim 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al (US 5112641) in view of Fujita et al (US 6238488) as applied to claims 1- 7, 13-19 and 21-22 and further in view of Nakajima et al (US 5858103).

Harada et al disclose a reaction chamber for processing a plurality of process substrates loaded on a boat.

Harada et al do not disclose that the boat is made of quartz.

Nakajima et al disclose a quartz boat inside their reaction chamber (Col 1 line 18-19).

Therefore it would be obvious for one of ordinary skill in the art at the time invention was made to use quartz boat for its cleanliness from contamination and stability at high temperature.

Response to Amendment

Applicant's arguments filed 11/26/2003 have been fully considered but they are not persuasive.

Applicant argues that the claimed invention distinguishes over the prior art of Harada et al, as they have not expressly disclosed a cleaning gas line.

In the new grounds of rejection it is stated that cleaning gas line in addition to process gas line has been disclosed in the prior art and would have been obvious for one of ordinary skill in the art to have used that.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N Kackar whose telephone number is 571 272 1436. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571 272 1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RK

P. Masson Zadeh
Primary Examiner
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